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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte PAUL FERNAND WILMS and CHEUNG-YUK WU

_____

Appeal 2009-002620
Application 10/785,108
Technology Center 2100

_____

Before MARC S. HOFF, CAROLYN D. THOMAS, and
ELENI MANTIS MERCADER, *Administrative Patent Judges.*

THOMAS, *Administrative Patent Judge.*

DECISION ON APPEAL[1]

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1-17 and 19-38. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

According to Appellants, the invention relates to an archiving method for extracting, transforming, and loading tasks. (Spec. 2, ll. 4-5.)

Claim 1 is illustrative:

1.   A method for archiving task information obtained from a data-warehousing environment comprising steps of:

a. obtaining changes in operational metadata from said data-warehousing environment,

b. extracting task information from said operational metadata,

c. storing said extracted task information in a buffer,

d. refreshing said buffer with changes in said operational metadata, and

e. moving task information from said buffer to an archive, said archived task information used in data analysis and mining.

Rejection

Claims 1-17 and 19-38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thompson (US 6,668,253 B1, Dec. 23, 2003) and Norcott (US 2003/0172091 A1, Sept. 11, 2003).

GROUPING OF CLAIMS

(1) Appellants argue claims 1 and 30 as a group on the basis of claim 1 (*see* App. Br. 6-9). We select independent claim 1 as the representative claim. Claims 2-9 depend from claim 1 and were not separately argued. Claims 31-38 depend from claim 30 and were not separately argued. We will, therefore, treat claims 2-9 and 31-38 as standing or falling with representative claim 1.

(2) Appellants separately argue claim 10 (App. Br. 10-11). Claims 11-17 and 19-28 depend from claim 10,[2] and were not separately argued. We will, therefore, treat claims 11-17 and 19-28 as standing or falling with representative claim 10. *See* 37 C.F.R. § 41.37(c)(1)(vii).

(3) Appellants separately argue claim 29 (App. Br. 11).

FINDINGS OF FACT (FF)

Thompson Reference

1a. Thompson discloses: "FIG. 26 depicts the point at which certain Meta Data elements [are] trapped during the Extraction and Transformation phase …. The following tables define some Meta Data elements of embodiments of this invention." (Col. 32, ll. 50-55.) The Technical Meta Data table includes the following elements: (1) Load Completion date/time

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[2] Claim 18 is canceled (*see* Amendment/Request for Reconsideration filed 11/30/2006). However, claims 23-24 and 27-28 depend from canceled claim 18. Claim 18 was dependent upon claim 10 but was cancelled by Appellants. Thus, we will treat claims 23-24 and 27-28 which are still rejected as dependent upon claim 10. In other words, we consider Appellants omission to change the dependency of claims 23-24 and 27-28 as an inadvertent error.

stamp; (2) Load Status; and (3) Load Duration. (*see* col. 33, ll. 18-20 and 44-48)

1b. Thompson discloses that "[t]he consolidation process starts with extracting data from the operational systems." (Col. 1, ll. 46-47.)

1c. Thompson discloses that a round-robin approach is used for refresh processing and extracting information from permanent tables that preferably comprises "updating load statistics metadata on the data warehouse server …." (col. 4, l. 56 - col. 4, l. 3).

1d. Thompson discloses:

> At any time during the transformation and cleansing process an error occurs, the row of data with the error is written to an error table along with an error message describing the reason for rejection. Once the errors have been corrected, the data is reprocessed during the next run of the associated data flow plan….

(Col. 21, l. 63 – col. 22, l. 1.)

1e. Thompson discloses: a system for enterprise information management comprising "retrieving operational data from the data source application using a data flow plan; validating and cleansing the retrieved operational data; loading the data [] into an appropriate temporary staging table …." (Col. 4, ll. 17-18 and 31-35.)

1f. Thompson discloses that "the transformation and staging server obtains data from the data source application … and places data into temporary staging tables to prepare for the … movement of the data to the warehouse server …." (Abstract.)

Norcott Reference

2a. Norcott discloses:

> In accordance with one aspect of the present invention,
> the change data extracted from the OLTP [on-line
> transaction processing] database 113 is maintained in one
> or more database objects, referred to herein as 'change
> tables' ..... The information that defines the structure of
> the change sets 210, 220 and change tables 211, 213,
> 221, 223 is maintained in system metadata 230.

(Para. [0030].)

2b. Figure 1 of Norcott illustrates triggers 115 attached to OLTP [on-line transaction processing] database 113 (*see* Fig. 1).

2c. Norcott discloses: "Triggers 115 are employed to implement a synchronous change data capture mechanism" (para. [0027]).

PRINCIPLES OF LAW
Obviousness

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine,* 837 F.2d 1071, 1073 (Fed. Cir. 1988). If the Examiner's burden is met, the burden then shifts to the Appellants to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See In re Oetiker,* 977 F.2d 1443, 1445 (Fed. Cir. 1992).

ANALYSIS

Claims 1-9 and 30-38

Issue 1a: Did the Examiner err in finding the prior art teaches or suggests "extracting task information from said operational metadata," as set forth in claim 1?

Appellants contend that "extracting financial data from an operational system is NOT the same as extracting task information from operational metadata obtained from a data-warehousing environment" (App. Br. 6) (emphasis omitted). Further, Appellants argue that Thompson's "retrieval of operational data from a data source CANNOT be equated to extracting task information from metadata" (App. Br. 7).

The Examiner finds that Thompson teaches "extracting data from the operational systems" (Ans. 20). Further, the Examiner "interprets the business metadata and technical metadata tables in columns 32-33 of Thompson[,] as operational metadata" (Ans. 21) (emphasis omitted). We agree with the Examiner.

For example, Thompson discloses trapping technical metadata (FF 1a). One of ordinary skill in the art would find that Thompson's trapping of data corresponds to extracting data, as the technical metadata is trapped during the Extraction and Transformation phase (FF 1a).

Furthermore, Thompson discloses that the trapped technical metadata (*i.e.*, extracted data) includes information relating to a load event, for

example the load completion date and time (FF 1a). Accordingly, we find that it would have been obvious to one of ordinary skill in the art that a load event is a task, and the information related to the load event (*e.g.*, the load completion date and time) is task information. Thus, Thompson teaches or suggests extracting task information, as the task information (*e.g.*, the load completion date and time) is included in the extracted metadata (*i.e.*, the trapped business and technical metadata). Further, Thompson discloses that the consolidation process starts with extracting data from the operational systems (FF 1b).

Accordingly, we find that Appellants have failed to show that the Examiner erred in finding that the prior art teaches or suggests extracting task information (*i.e.*, technical metadata) from said operational metadata (*i.e.*, data from the operational systems), as set forth in claim 1.

Issue 1b: Did the Examiner err in finding that the prior art teaches or suggests "refreshing said buffer with changes in said operational metadata," as set forth in claim 1?

Appellants argue they are "unsure how the Examiner is interpreting the use of a round-robin approach and the placement of data in temporary staging tables to read on Claim 1's feature of 'refreshing said buffer with changes in said operational metadata ....'" (App. Br. 8) (emphasis omitted).

The Examiner interprets the "updating of the load statistics metadata and renaming [of] the temporary table/buffer to the load table as the refresh

with new changes ...." (Ans. 22) (emphasis omitted). We agree with the Examiner.

Thompson discloses updating load statistics metadata on the data warehouse server (FF 1c). We find that Thompson's updating of information corresponds to a refresh operation of data, as both are directed toward making the latest information available to the users. The Examiner finds that Thompson does not explicitly disclose "changes in operational metadata," and relies on Norcott for this teaching (Ans. 22).

The test for obviousness is what the combined teachings of the references would have suggested to the artisan. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Thompson discloses updating (*i.e.*, refreshing) operational metadata on a data warehouse server (FF 1c). Norcott discloses extracting change data, and maintaining the change data in database objects (*i.e.*, updating/refreshing change data) (FF 2a). Thus, we find that the above-noted claimed limitations read on the combined teachings of Thompson and Norcott.

Accordingly, we find that Appellants have failed to show that the Examiner erred in finding that the prior art teaches or suggests "refreshing said buffer with changes in said operational metadata," as set forth in claim 1.

Issue 1c: Did the Examiner err in finding that the prior art teaches or suggests "moving task information from said buffer to said archive," as set forth in claim 1?

Appellants argue that Thompson's teaching "of transforming and cleansing data prior to movement to a server cannot be equated to Applicants' step of moving task information from a buffer (that held the task information that was extracted from operational metadata) to an archive" (Reply Br. 6).

The Examiner finds that Thompson discloses moving task information from said buffer to an archive, "as [the] staging server obtains data from the data source application via requests and places the data into temporary staging tables to prepare for the transformation and cleansing process prior to movement of the data to the data warehouse server" (Ans. 4). We agree.

As discussed *supra*, Thompson discloses task information, (*i.e.*, information related to a load event that is found in the extracted technical metadata). We find that Thompson's temporary staging tables correspond to the buffer of claim 1, and the data warehouse server corresponds to the archive of claim 1. Further, as discussed *supra*, Thompson teaches or suggests that (1) it is the technical metadata (which contains task information) that is extracted and loaded into the staging tables (FF 1a, 1c and 1f) and (2) then moved into the data warehouse server (*i.e.*, archive).

Accordingly, we find that Appellants have failed to show that the Examiner erred in finding that the prior art teaches or suggests "moving task information from said buffer to said archive," as set forth in claim 1.

Thus, for all of the reasons discussed above, we affirm the Examiner's rejection of claim 1, and claims 2-9 and 30-38 which fall therewith.

Claim 10

Issue 2: Did the Examiner err in finding that the prior art teaches or suggests "uniquely identifying each task within a run," as set forth in claim 10?

Appellants argue that Thompson "merely teaches an 'Enterprise Management System' that includes 1) data extraction and movement, 2) data transformation and cleansing, 3) database update[ing] and tuning, and [ ] 4) database access" (App. Br. 9) (emphasis omitted). Appellants also argue that Thompson "merely teaches updating load statistics metadata for each table" (App. Br. 10) (emphasis omitted). We agree.

While Thompson discloses the concept of a "run" (FF 1d), the portions of Thompson cited by the Examiner fail to specifically teach or suggest "identifying *each task*" associated with that run.

Accordingly, we find the Examiner has erred in finding the prior art teaches or suggests "uniquely identifying each task within a run," as set forth in claim 10. Accordingly, we reverse the Examiner's rejection of claim 10, and claims 11-17 and 19-28 which fall therewith.

Claim 29

Issue 3: Did the Examiner err in finding the prior art teaches or suggests a trigger mechanism that is attached to a staging table, as set forth in claim 29?

Appellants contend "the trigger mechanism of claim 29 is specific in that the trigger mechanism is attached to a staging table that stores task information extracted from operational metadata" (App. Br. 11) (emphasis omitted). Appellants argue "[s]uch a trigger mechanism is neither taught nor suggested by the Thompson or Norcott references" (App. Br. 11).

The Examiner acknowledges that Thompson does not explicitly disclose "[a]ttachment of the trigger mechanism" (Ans. 26). However, the Examiner finds that Norcott discloses (1) triggers 115 that are employed to implement a synchronous change data capture and (2) that the triggers, as shown in Figure 1 of Norcott, are attached to a database (Ans. 26) (FF 2b and 2c).

The Examiner finds that "Norcott's teachings would have allowed Thompson to provide a synchronous change data capture system that can be transactionally consistent without a costly post processing phase" (Ans. 26) (emphasis omitted). The Examiner further finds that "Thompson teaches [a] 'staging table storing said task information[,]' as … data is loaded into an appropriate temporary staging table" (Ans. 24-25).

The test for obviousness is what the combined teachings of the references would have suggested to the artisan. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). We find that the combined teaches show storing task information (*i.e.*, data) in a storage mechanism (*i.e.*, staging table) and a trigger mechanism attached to a storage mechanism (*i.e.*, database) for synchronous data capture. Thus, we find that the above-noted claimed limitations read on the combined teachings of Thompson and Norcott.

Accordingly, we find that Appellants have failed to show that the Examiner erred in finding that the prior art teaches or suggest a "trigger mechanisms [that are] attached to said staging table," as recited in claim 29.

Thus, for all of the reasons discussed above, we affirm the Examiner's rejection of claim 29.

DECISION

We affirm the Examiner's rejection of claims 1-9 and 29-38 under 35 U.S.C. § 103(a) as being obvious over Thompson and Norcott.

We reverse the Examiner's rejection of claims 10-17 and 19-28 under 35 U.S.C. § 103(a) as being obvious over Thompson and Norcott.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2009).

AFFIRMED-IN-PART

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